

FRAME 26

The Serial Assignment Table is prepared in numerical sequence and does not indicate priority of landing. Recall what a serial number is (see Chapter 3). This table provides a ready reference for control and coordination of the ship-to-shore movement. As an example, it is a ready check-off list to ensure that all assault elements and equipment, in fact, have been put ashore at the correct time and place. Notice in the example the REMARKS COLUMN contains at least the Wave and Beach Designator.

SELECT THE CORRECT ANSWER

1. The sequence of listing of elements in the Serial Assignment Tables is by the tactical sequence for landing.

TRUE

FALSE

2. Personnel and equipment for the Shore Party Reconnaissance Party are to be embarked on the same ship with the infantry assault elements and will land over the same beach at the same time as the infantry. However, they are not part of the task organization of the infantry element. The Shore Party Reconnaissance Party will therefore be assigned the same serial number as the infantry unit with which it is landed.

TRUE

FALSE

ANSWERS

1. FALSE. They are listed in numerical order by serial number. The assigned serial number has no relationship to the priority or sequence for landing.

2. FALSE. If you answered TRUE you are missing one of the reasons for serializing organizations or task groupings. Remember, serial numbers are allocated and assigned down the administrative chain. This method allows the major tactical commands to develop their plans and to include in their plans those supporting organizations, which are to become part of that specific task organization. The supporting personnel and equipment actually become part of the Task Organization for the mission. In this instance, the Shore Party Reconnaissance Party is not part of the infantry unit, is not part of the infantry unit's mission, and is a separate administrative organization with a specific mission. Thus, the Shore Party Battalion would assign its own serial to the reconnaissance party. This ensures the proper embarkation - debarkation. The wave in question would thus include at least two serials, the infantry unit and the SP reconnaissance party. Let's try another question.

SELECT THE CORRECT ANSWER

The direct support artillery battery assigns forward observers to the infantry battalion in preparation for an amphibious assault. The FO's are assigned to and embarked with the respective infantry companies and will be landed with the said units. In which unit's block of serial numbers would the FO's be included?

- a. the artillery battery's
- b. the infantry battalion's
- c. the Headquarters Company, artillery battalion's
- d. the infantry company's

ANSWER

- a. WRONG. The artillery battery would have its own block of serial numbers; however, the FO's are assigned to specific infantry units, are to be landed from the same ship as the infantry unit, and are part and parcel of the support provided the infantry unit for the infantry unit's mission. (Task Organization)

- b. WRONG. Granted, the infantry battalion allocates serials to companies; however, subordinate commands assign serials in their tactical organization.

- c. WRONG.

- d. RIGHT. The Infantry Company would carry the FO within its company headquarters. Each FO would therefore be included in one of the infantry company's serial numbers and land as part of that serial. Thus, from the planning stages throughout the landing, the tactical commander would have within his own serials those personnel, units and equipment that are part of his tactical organization for combat ashore.

For further clarification refer to LFM 0-1, page 11-7, para 1150; FMFM 6-3, page 110, para 2906.

FRAME 27

Let's try an example:

You are the CO of Co A, embarked aboard an LST, and have been allotted the serial numbers 1251-1260. You have attached a mortar section (17 personnel) and one DRAGON section (17 personnel). You are landing in AAVP7s (capacity is 25, however, plan on 18-22 depending on equipment carried). Your assault platoons will be in the second wave over BEACH RED 1, and one platoon will be in the third wave with your attached elements and the Company Headquarters. For this exercise, each platoon (Rein) requires 51 boat spaces (42 in a platoon; 7 from a MG squad; 2 from an assault team); attachments comprise the 34 personnel listed above; and company headquarters require 18 boat spaces (6 in Co HQ; 1 MG section leader; 1 assault squad leader and 10 from mortar section).

Fill in the Serial Assignment Table below.

SER.			MATERIAL	CRAFT		
NO.	UNIT	PERS	EQUIP.	NO./		
			VEHICLES	TYPE	SHIP	REMARKS

ANSWER

If your solution resembles the following you have the right idea.

SER. NO.	UNIT	PERS	MATERIAL EQUIP VEHICLES	CRAFT NO. / TYPE	SHIP	REMARKS
1251	Aslt Plts Co A(Rein)	102	Normal Combat 4 M240G MG	5 AAVP	LST	2d WAVE BEACH RED-1
1252	Co A(-) (Rein)	103	2 81mm Mort 2 M240G MG 8 Dragons	5 AAVP	LST	3d WAVE BEACH RED-1

Technically DRAGONS need not be shown since they do not take additional boat spaces. However, including them for clarity identifies combat power and is certainly permissible.

FRAME 28

You must remember that when you assign your elements to a specific wave, in a specific position, on a particular beach, that's when and where it will arrive. You want your elements to arrive on the beach or landing zone in the tactical formations in which they will deploy. Remember the actual assignment of individual serial numbers is based on the organization for landing.

SELECT THE CORRECT ANSWER

Your entire command can be in one serial, independent of the number of landing craft/amphibious vehicles or helicopters utilized, so long as they all originate from one ship and proceed to the same beach at approximately the same time.

TRUE

FALSE

ANSWER

TRUE-Proceed.

FRAME 29

Now that you have prepared your company Serial Assignment Table, you submit it to battalion S-3, whereupon it is correlated with the other company lists and submitted to the regiment. At the highest level of command in the landing force, the Serial Assignment Table is combined and published in numerical sequence for use by the Amphibious Task Force.

Let's try another example:

As company commander of Co A, 1st Bn, 23d Mar, you have been allotted the block of serial numbers 51-56. Your company is presently in the following disposition:

<u>Element</u>	<u>Aboard</u>	<u>Wave Assigned</u>	<u>Beach</u>
1st Platoon (Rein)(51)	LST-1179	Second	RED-1
2d Platoon (Rein) (51)	LSD-32	Third	RED-1
3d Platoon (Rein) (51)	LST-1180	Second	RED-1
Co Hq (Rein) (18)	LSD-32	Third	RED-1
*TOW Sqd (5) (2 HMMWV)	LSD-32	Third	RED-1

*Remember the boat spaces taken up by the vehicles must be accounted for. One LCM-6 will hold two HMMWV or 80 people. One LCM-8 will hold four HMMWV or 200 people.

How would you utilize the serial numbers, which you have been allotted?
(Write your answer below)

SER.			MATERIAL	CRAFT		
NO.	UNIT	PERS	EQUIP.	NO./	SHIP	REMARKS
			VEHICLES	TYPE		

ANSWER

You would assign three serial numbers and have three left over. Serial No. 51 would be 1st Platoon, Serial No. 52 would be 3d Platoon, Serial No. 53 would include the 2d Platoon, Co Hq (Rein), and the attached TOW section. They would be listed on your serial assignment table as:

NO.	UNIT	PERS	VEHICLES	TYPE	SHIP	REMARKS
51	1st Plat, Co A, 23dMar	51	Normal Combat	2 AAVP	LST-1179	2d wave BEACH RED-1
52	3d Plat, Co A, 23dMar	51	Normal Combat	2 AAVP	LST-1180	2d Wave BEACH RED-1
53	Co A(-)(Rein) 23d Mar	73	2 HMMWV w/TOW	1 LCM-8	LSD-32	3d Wave BEACH RED-1

The point to remember is one serial originates from one ship, goes to one beach or landing zone at one time, and is composed of one tactical organization. The other details of the Serial Assignment Table format will be easy for you to fill in. Keep in mind that all the aforementioned information on the criteria for the allocation of serial numbers, the formulation of serials, the assigning of serial numbers and the preparation of the Serial Assignment Table also apply to the Heliteam Wave and Serial Assignment Table for helilifted units.

CHAPTER 7

THE LANDING SEQUENCE TABLE

FRAME 30

The name of the table just about gives it away--but read on since there are some specifics you will need to know in order to prepare one. The Landing Sequence Table presents a complete listing of the estimated sequence of landing nonscheduled units of a landing force. Add those two words "estimated" and "nonscheduled" to your earlier thoughts about the title and you have the whole picture. Serials aboard LSTs, which are beached prior to general unloading are included in the Landing Sequence Table.

Preparing Agency. The landing sequence table is prepared at the landing team, group, and force levels.

FILL IN THE BLANKS

The Landing Sequence Table presents a complete listing of the _____ of landing the _____ units of the landing force.

ANSWER

You're right, those same key words we just highlighted: "the estimated sequence of landing the nonscheduled units. . ."

FRAME 31

The nonscheduled units are listed in the order in which it is anticipated that they will be placed ashore. Obviously, if they are nonscheduled, they can't be sequenced in precise order--but the landing force commander, from experience, has some idea of when he will want the nonscheduled units to land. Therefore, the document serves as a guide to the embarkation officer in preparation of his loading plan and is the principle document used by the landing force and naval agencies in executing and controlling the movement ashore of nonscheduled units.

SELECT THE CORRECT ANSWER

The sequence in which the elements are listed in the Landing Sequence Table is the order:

- a. in which the embarkation officer placed them aboard ship
- b. of the commander's priority of off-loading
- c. of the schedule of the assault waves

ANSWER

b. The commander establishes his priority for off-loading the nonscheduled units based upon the sequence in which he anticipates they will be required ashore.

FRAME 32

Now that you have the how and why well in mind, look at a sample table and see what the details are. As in the previous tables, the format of the table tells you just what you need to put where--all you need to know are the basics.

(SAMPLE)
LANDING SEQUENCE TABLE

UNIT	ELEMENT	SERIAL NUMBER	CARRIER		SHIP	BEACH	REMARKS
			NO.	TYPE			
Co A(-) 4thTkBn	Co A(-)	*2352	3	LCU	LSD-30	RED	
2/14	D Btry	*2013	2	LCU	LSD-31	RED	
	H&S Btry	2017	4	LCM-8	LSD-32	RED	
Co A(-) 4th EngBn	Co A(-)	2210	5	LCM-8	LSD-32	RED	
Co B(-)	Co B(-)	2211	5	LCM-8	LSD-32	BLUE	

LST BEACHING SEQUENCE

4th MTBn	Co A(-)	2312			LST-1179	RED	Beached
2/14	E Btry	2014			LST-1179	RED	Beached
2/14	F Btry	2015			LST-1180	BLUE	Beached

*NOTE: Serial numbers are shown in anticipated sequence of landing, not numerical sequence.

The first two columns, headed "unit" and "element," are the only ones which may be a source of confusion, but their use can be explained quite simply in terms of some rules to follow when filling in those columns. The unit column is always used and designates a specific unit, portion of a unit or combination of organic units, which form one or more serials. Thus, by the definition used here, a unit can be a company, two platoons of a company, or it may be a battalion--so long as it forms at least one serial and is a definite unit by name (such as A Co(-), 2d Tk Bn), not just "a tank company."

ANSWER

Unit

FRAME 33

To distinguish the use of the term "unit" from the next column heading, "element," consider that if a unit does not constitute only one serial, then the unit must be broken down into elements and each element must be assigned a separate serial number. This is the case if the unit is separated into more than one serial for any reason.

FILL IN THE BLANKS

1. At what levels is the Landing Sequence Table normally prepared?

2. An element is used to constitute a serial when the unit

_____.

ANSWERS

1. The landing team, group or force level.
2. The unit to which the element belongs is divided among more than one ship, more than one beach/landing zone or landed at more than one time.

CHAPTER 8

HELICOPTER AVAILABILITY TABLE

Four documents which are found as tabs to the Landing Plan Appendix to Annex R of the OPLAN/OPORDER are the Helicopter Availability Table, Heliteam Wave and Serial Assignment Table, Helicopter Employment and Assault Landing Table and Helicopter Landing Diagram.

The helicopter-related documents found as tabs to the Landing Plan Appendix to Annex R of the OPLAN/OPORDER are:

- a. _____
- b. _____
- c. _____
- d. _____

Your response should have been:

- a. Helicopter Availability Table
- b. Helicopter Landing Diagram
- c. Helicopter Wave and Serial Assignment Table
- d. Helicopter Employment and Assault Landing Table

The Helicopter Availability Table is prepared early in the planning phase by the senior helicopter unit commander to give landing force and helicopterborne unit commanders the basic information needed to determine how many helicopters are available for employment. This document is a listing of the helicopter units, the projected number available by type for the first and subsequent lifts, the tentative load per aircraft in both cargo and troops, the ships on which the helos are located, and the ship's respective deck launch capacities. These availability figures are estimates for D-day operations only and are based upon expected losses due to maintenance factors and enemy action.

The Helicopter Availability Table is prepared by the _____.

ANSWER

The senior helicopter unit commander prepares the Helicopter Availability Table.

Which of the following would not be found on the Helicopter Availability Table?

- a. Aircraft Availability
- b. Zone Loading Capacity
- c. Deck Launch Capacity
- d. Aircraft Model

ANSWER

The correct answer would be b. Zone Loading Capacity. As stated on page 69, the Helicopter Availability Table contains the following information: helicopter units, number available by type for first and subsequent lifts, tentative aircraft load, ships on which the helicopters are located and the respective ship's deck launch capacities.

Projected helicopter availability portrayed in the Helicopter Availability Table is for D-day and subsequent operations ashore.

TRUE

FALSE

ANSWER

FALSE

The Helicopter Availability Table portrays helicopter availability figures for D-day only. The figures given are for first and subsequent lifts but only on D-day.

CHAPTER 9

HELICOPTER LANDING DIAGRAM

The Helicopter Landing Diagram is a graphic depiction of the approach and retirement lanes from the helicopter transport area to the selected landing zones. The diagram includes the control measures, which are used to control the ship-to-shore helicopter movement. The senior helicopter unit commander prepares the Helicopter Landing Diagram, although it must be coordinated with the helicopter transport group/unit commander, HDC (Helicopter Direction Center), the TACC (Tactical Air Control Center), and SACC (Supporting Arms Coordination Center). The CATF (Commander Amphibious Task Force) is the final approving authority. Control measures, which could be depicted on the Helicopter Landing Diagram, are:

a. RP (Rendezvous Point) - Positions designated for assembling loaded helicopters when conducting operations. These points are located at a given altitude and position relative to the departure point.

b. DP (Departure Point) - An air control point at the seaward end of the helicopter approach route system from which helicopter waves are dispatched along the selected approach route to the initial point.

c. PCP (Penetration Control Point) - The point along helicopter approach and retirement routes at which helicopter waves penetrate a hostile coastline during the ship-to-shore movement.

d. CP (Control Point) - A position marked by a buoy, ship or craft, aircraft electronic device, or conspicuous terrain feature which is used as an en route aid to navigation and control of helicopters. They should be held to a minimum.

e. IP (Initial Point) - An air control point in the vicinity of a landing zone from which individual flights of helicopters are directed to their prescribed landing sites.

f. BP (Break-up Point) - An air control point at which helicopters returning from a landing zone break formation and are released to return to individual ship(s) or are dispatched for other employment. The BP may be at the same point, geographically, as the DP.

The SACC is the final approving authority for the Helicopter Landing Diagram.

TRUE

FALSE

ANSWER

The correct response is false. The SACC is an agency, which must be coordinated with as the Helicopter Landing Diagram is being prepared. However, the final approving authority is the CATF.

The Helicopter Landing Diagram is prepared by the _____.

ANSWER

Your response should have been senior helicopter unit commander.

The Break-up Point may be the same point geographically as the
_____.

ANSWER

If you answered Departure Point, you are correct. Refer to the definition of a Break-Up Point, you will find that included is the statement: The BP may be at the same point geographically as the DP.

What agencies must the Helicopter Landing Diagram be coordinated through?

- a. _____
- b. _____
- c. _____
- d. _____

ANSWER

Your response should have been:

- a. Helicopter Transport Group/Unit Commander
- b. HDC
- c. TACC
- d. SACC

As stated on page 73 "...it must be coordinated with the helicopter transport group/unit commander, HDC (Helicopter Direction Center), the TACC (Tactical Air Control Center), and SACC (Supporting Arms Coordination Center).

CHAPTER 10

HELITEAM WAVE AND SERIAL ASSIGNMENT TABLE (HW&SAT)

The Heliteam Wave and Serial Assignment Table (HW&SAT) depicts the tactical units, equipment, and supplies that are loaded in each helicopter. It identifies each heliteam including its supplies and equipment with its assigned serial number and the serial number with the flight and wave that will lift it. All landing categories are included in the HW&SAT. Scheduled waves are organized into helicopter waves and listed in numerical sequence. On-call and non-scheduled serials will be listed in the planned sequence of landing following the scheduled waves. The weight section serves as a check to ensure that maximum helicopter payloads are not exceeded. (A combat loaded Marine weighs 240 pounds for planning purposes.) This table is prepared by the helicopterborne unit commander in coordination with the helicopter unit commander and is submitted through the chain of command for consolidation and final approval. Subordinate units extract and use pertinent information from the final approved tables. A sample is found on page 83. The form should prove to be self-explanatory and pose no difficulties. Keep in mind a key consideration is not to exceed maximum allowable aircraft payload.

What landing categories are included in the HW&SAT?

- a. _____
- b. _____
- c. _____

ANSWER

Your response to this question should have been:

- a. Scheduled Waves
- b. On-Call Serials
- c. Non-Scheduled Serials

The _____ prepares the HW&SAT.

ANSWER

If your response was the helicopterborne unit commander, you are correct.

The person most concerned with the organization for landing would be the helicopterborne unit commander as this is the sequence in which his troops will be landed. It therefore follows that he would be the individual who prepares the Heliteam Wave and Serial Assignment Table (HW&SAT).

What is a key consideration when preparing a HW&SAT?

ANSWER

You are correct if you stated that a key consideration when preparing a HW&SAT is to insure that maximum allowable aircraft payload is not exceeded.

As we know maximum allowable aircraft payload cannot be exceeded. By computing the cargo weight for each aircraft, we are assured that the maximum weight limitation will not be exceeded.

Utilizing information found in Chapter 10 and the provided HW&SAT, which Heliteam Flight is not correct and why?

HELITEAM WAVE AND SERIAL ASSIGNMENT TABLE (HW&SAT)

WAVE	HELITEAM FLIGHT	PERSONNEL TROOP UNIT	NO.	SUPPLIES AND EQUIPMENT	WEIGHT (3000# MAX)		
	SERIAL				PERS	EQUIP	TOTAL
1	ANVIL	1st Sqd (-),	9	MG Ammo(63#)	2880	63	2943
	101	1st Plat, Co E					
	310-1	Corpsman	1				
		1st Plat					
		Msgr, 1st Plat	1				
		Sec Ldr,	<u>1</u>				
		MG Sec	<u>12</u>				
	ANVIL	2d Sqd(-),	9	1-MG(24#) MG Ammo(63#)	2880	87	2967
	102	1st Plat					
	310-2	1st Sqd(-),	3				
		MG Sec					
		(All Co E)	<u>12</u>				
	ANVIL	3d FT, 1st Sqd	4	MG Ammo(63#)	2880	63	2943
	103	3d FT, 2d Sqd	4				
	310-3	3d FT, 3d Sqd	3				
		Plat Sgt	1				
		(All 1st Plat, Co E)	<u>12</u>				
	ANVIL	Plat Comdr	1	MG Ammo(100#)	3120	100	3220
	104	1st Plat					
	310-4	3d Sqd(-),	10				
		1st Plat					
		Corpsman	1				
	Msgr, 1st Plat	<u>1</u>					
		(All Co E)	<u>13</u>				

Figure A

ANSWER

Your response should have been Anvil 104. The 3,000 lbs. maximum allowable payload has been exceeded.

Ex	240	lbs. per Marine
	<u>x13</u>	troops
	3120	lbs.
	<u>+100</u>	lbs. equipment
	3220	lbs. total weight

CHAPTER 11

HELICOPTER EMPLOYMENT AND ASSAULT LANDING TABLE (HEALT)

The Helicopter Employment and Assault Landing Table (HEALT) includes the detailed plans for the movement of helicopterborne troops, equipment and supplies. It is the landing timetable for the helicopter movement uniting scheduled landing force units with numbered flights and waves. This table provides the basis for the helicopter unit's flight schedule and is used by the appropriate air control agency, such as HDC, as the basis for controlling the execution of the helicopter movement. This document is prepared jointly by the helicopterborne unit commander and the helicopter unit commander in coordination with the ship's commander and HDC. Each successive echelon makes any necessary changes and consolidates all tables and prepares the final approved consolidated tables. Upon publication, lower echelons publish extracts pertaining to their units.

In order to develop a HEALT, a flight profile for each wave must be constructed. In order to construct a flight profile, specific information, such as time factors and fuel/speed/range data, must be available. Figures A, B and C on pages 86 to 88 provide the necessary data to construct the required flight profiles, which would be used in constructing a HEALT.

Time Factors

In planning the time required for a helicopter lift, all increments of time required to perform specific actions must be included. The table below lists the average time required to perform these movements and should be used for planning.

The times are expressed in minutes. This table includes times for both shipboard and land-based operations.

	UH-1N	CH-46E	CH-53D
Load Troops/Refuel Hot	2	4	5
Load Internal Cargo	2	4	8
Pick-up/Land External Cargo	1	1	1
Take-Off, Climb & Rendezvous (Both Land and Shipboard)	4	4	4
En route Time (Miles/min)	1.6	2.0	2.2
Approach and Land	2	2	2
Unload Troops	1	1	2
Unload Internal Cargo	2	3	10
Refuel Hot (Full Load)	6	4	5
LPH Recovery	15	15	15

To ensure that each increment of time is accounted for, a flight profile may be utilized. A sample flight profile is depicted on the next page.

Figure A

Flight Profile for a CH-46E

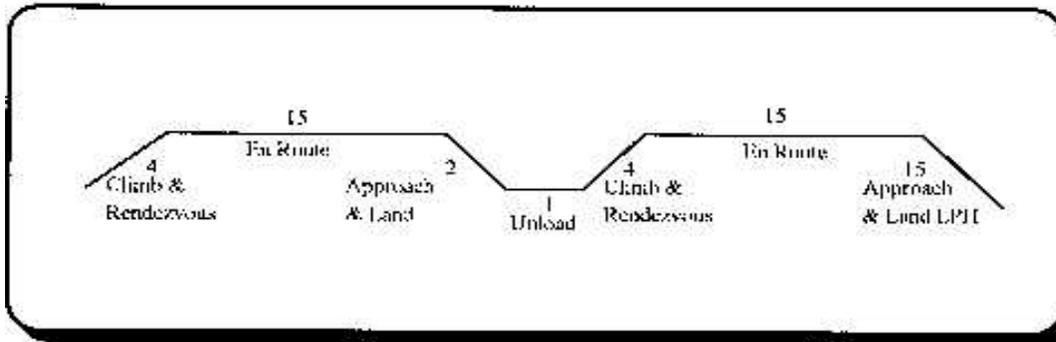


Figure B

Helicopter Fuel/Speed/Range Data

Fuel consumption for a helicopter varies greatly with the tasks it performs on a given mission. For example, the helicopter may have to wait in a pick-up zone for several minutes burning fuel at a rate of 200 lb. per hour, or it may pick up and land many external cargo loads with several minutes of hovering at high power settings, burning fuel at a rate of 300 lb. per hour. The figures in the table below are average figures for a "typical" mission.

TYPE HELICOPTER		UH-1	CH-46	CH-53E
Cruise Speed/Knots		100	120	130
Airspeed with External Load		70	100	100
Nautical Miles Per Minute (Cruise Speed)		1.6	2	2.2
Usable Fuel	Gallons	206	355	638
Capacity	Pounds	1343	2420	4338
Fuel	Lbs per Hr.	630	1500	2000
Consumption	Lbs per Min.	10.5	25	33
Combat Radius at		85 nm	80 nm	100 nm
Cruise Speed for 100 nm				
Time (Hours)/Fuel (Lbs)		1+40/1100	1+20/2000	1+50/3700
Safe Fuel Reserve (Lbs)				
20-30 min		250	400	1200

Figure C

HELICOPTER EMPLOYMENT AND ASSAULT LANDING TABLE (HEALT)

WAVE	HELICOPTER	NUMBER	FROM	TO	TIME	DESTINATION				TROOP UNIT,
	UNIT AND FLIGHT NO	& MODEL A/C	CARRIER (ORIGIN)	REPORT (LOAD)	LOAD	LAUNCH	LAND	LZ	LS	EQUIP & SERIAL EXTERNAL LOADS
1	ANVIL 100	6 CH-46	LPH-2	LPH-2	PRE LOAD	H-23	H-Hr	ROBIN	--	1st,2d Plat(-), Co A, Ser 230
2	ANVIL 200	6 CH-46	LPH-2	LPH-2	H-13	H-9	H+14	ROBIN	--	Co A(-) Ser 231
3	ANVIL 300	7 CH-46	LPH-2	LPH-2	H+1	H+5	H+27	ROBIN	--	Elms Co A, Ser 232; Recon Pty Btry D, Ser 252

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The above depicted sample provides only a basic level of information and preparation guidance. However, the general information regarding recording procedures will remain the same regardless of the magnitude of the operation.

SELECT THE CORRECT ANSWER

The HEALT is prepared solely by the helicopterborne unit commander.

TRUE

FALSE

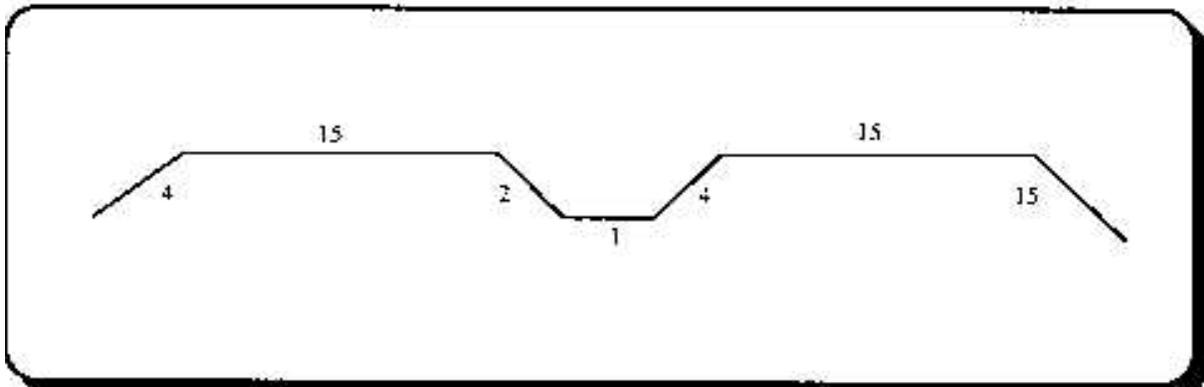
ANSWER

If your response was true, you were incorrect. The HEALT is prepared jointly by the helicopterborne unit commander and the helicopter unit commander.

Using the flight profile found on page 87, what is the total time required to fly the mission from take off on the LPH to touch down back aboard the LPH?

ANSWER

The total time for mission completion is, 56 minutes.



The sum of these segments of the flight profile is 56 minutes. Troop loading time would not be counted.

Using the flight profile on page 87 and the time factors on page 88, if the helicopters were CH-46, flying at cruise speed, how far away would the helicopter landing zone be from the LPH?

ANSWER

Your response should have been 30 nm. At cruise speed, a CH-46 is flying at 2 nm per minute. The en route phase of the profile denotes 15 minutes en route time; hence, 15 minutes multiplied by 2 nm per minute equals 30 nm; therefore, the helicopter-landing zone is 30 nm from the LPH.

Again using the data on pages 87 and 88 and assuming that the helicopters are CH-46s, what would be the minimum fuel in pounds required to complete this mission if the helicopterborne unit commander requested reducing the fuel load to increase maximum payload capabilities?

ANSWER

Your response should have been 1,900 pounds. To arrive at that answer, the following calculations were necessary:

Round trip time 56 minutes

20 minute fuel reserve
76 minutes

76 minutes
x25 fuel consumption of CH-46 (per minute)
1900 pounds fuel required

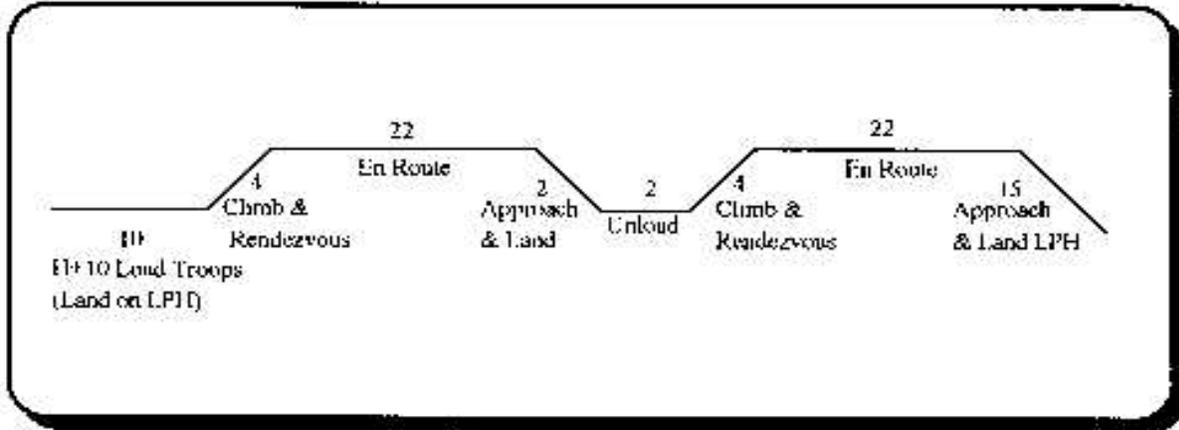
What would be the increase in maximum payload capability of the CH-46s assuming that fuel would be reduced to 1900 pounds?

The increase in maximum payload capability would be 520 pounds. To determine the increase in maximum allowable payload, simply subtract fuel required from capacity for the appropriate model helicopter in this case, the CH-46.

Ex.	2420	Fuel Capacity
	<u>-1900</u>	Fuel Required
	520	Pounds maximum payload increase

Construct a flight profile for a flight of CH-53s that have just landed aboard a LPH to carry their assigned heliteams to a landing zone 50 miles from the LPH. If the CH-53s landed aboard the ship at H+10, what time would the aircraft land in the zone and what time would they land back aboard the LPH?

The flight profile that you constructed should be similar to this:



With a landing time of H+10, the CH-53s would land in the helicopter zone at H+43. This time is a sum of the following:

H+10	Land aboard the LPH
5	Minutes to load troops
4	Minutes to climb and rendezvous
22	Minutes en route (50 nm divided by 2.2 mpm)
2	Minutes approach and land
<u>2</u>	
H+43	

ANSWER

Your response is correct if you had: The landing time back to the LPH at H+86. This time is the sum of all the segment of the flight profile.

H+43	Land in zone
2	Minutes to unload
4	Minutes to climb and rendezvous
22	Minutes en route
15	Minutes for approach and recovery
<u>15</u>	
H+86	